

implementation licenses.<sup>13/</sup> The Commission should make these regulations effective for systems authorized below 800 MHz.

**10. Fixed Operations in the 150-174  
and 450-470 MHz Bands**

The Commission proposes that existing fixed use operations be permitted to continue on a secondary basis. E.F. Johnson concurs that the Commission should limit new secondary fixed assignments and significant modifications of existing fixed use channels to licensees with exclusive use assignments. Those entities with an exclusive authorization in a geographic area should be permitted maximum flexibility. This ability should extend to ancillary use of the frequency assignments for fixed purposes.

**11. Itinerant and Temporary Operations**

The Commission proposes to increase the number of itinerant frequencies beyond those created by a proportional increase from the channel split. As noted above, E.F. Johnson recommends that the Commission establish a portion of the channels available from each pool for shared, trunked band licensed operations. E.F. Johnson expects that this option will meet the requirements satisfied today for many entities holding an authorization for itinerant operations. The Commission may wish to consider,

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<sup>13/</sup> P.R. Docket No. 92-210, See News Release issued May 13, 1993.

therefore, reducing the number of channels designated for itinerant use.

**12. Limits on Shared Channels and the  
25-50 MHz, 150-174 MHz and 450-470 MHz Bands**

The Commission proposes no changes in the number of shared channels an individual licensee may hold from the current limitation of one for non-public, safety systems and two for public safety systems. E.F. Johnson recommends that the Commission relax the limitation on the ability to secure more than one shared channel for non-public safety systems, if the applicant proposes to use multi-channel trunked operations.

Even non-exclusive channels can be employed in a shared environment on a trunked basis. Unlike band licensing, which would permit the use of any frequency assignment within the authorized range, the use of trunking in conjunction with multiple shared channels would provide greater options to the user. Coordinators would be able to recommend multiple channels in an area. An applicant would then use a number of shared channels in an area, depending upon the frequency coordinator's recommendation. The significant benefit to the user is that the coordinator would have recommended the least congested channels in the area. The use of more than one channel, however, will provide additional flexibility so that if a channel is in operation, others might be available for use.

### 13. Low Power Operations

E.F. Johnson supports the continued use of low power operations. To the extent feasible, low power operations should also be authorized on a coordinated basis. This action would promote spectrum efficiency and allow users the greatest

#### **16. Out of Band Chirp Limitations**

The new regulations would add to the frequency stability limitations the requirement that all transmitters type-accepted under Part 88 limit "chirps". All equipment manufactured by E.F. Johnson is designed to limit chirps. The Commission's regulations will insure that substandard equipment that could cause interference to other users will not be type-accepted. In particular, this would help eliminate interference to television receivers operating in adjacent bands and to other licensees operating digital systems.

#### **17. Partial Assignments**

The Commission proposes expanding the option which allows licensees to make partial assignments. E.F. Johnson supports the Commission's initiatives. Licensees should be encouraged to partially assign channels, where they are not employing the spectrum to the fullest extent possible. The revised regulations permitting partial assignments will allow licensees to retain the use of channels they require, while creating incentives for the more intense use of the remaining spectrum.

#### **18. Shared Use of Radio Stations and Multiple Licensing**

E.F. Johnson strongly supports the Commission's initiative to reduce the options for shared use to SMRs only. It also agrees that while existing shared and multiple licensed systems could continue in operation indefinitely, all new multiple

licensed systems would be prohibited. The SMR industry thrives at 800 MHz. The Commission created additional opportunity for entrepreneurial two-way radio systems at 900 MHz and 220 MHz. Traditional users who require their own radio systems should be insured sufficient spectrum. The elimination of community repeater and other similar multiple licensed systems in bands below 800 MHz will insure that the options for single user systems remain available.

#### **19. Spread Spectrum Operations**

As it has in the past, the Commission would allow direct sequence spread spectrum systems in public safety covert operations. Because E.F. Johnson Company recommends "blocking" of spectrum allocated for different radio services, the interference from employment of direct sequence spread spectrum for public safety systems, among other users, should be minimal. The Commission has authorized spread spectrum systems on public safety channels in the past. There have been no reports of harmful interference from these devices. Accordingly, the Commission should maintain the maximum flexibility possible and permit all types of modulation schemes which will not cause harmful interference to co-channel users.

#### **20. Trunked Operations**

E.F. Johnson strongly supports the Commission's initiatives to permit trunking below 800 MHz. The frequency coordinators

should have the authority to determine the area over which individual and band licensed trunked coordinated frequencies may operate. As the Commission recommends, licensees should have exclusive or coordinated shared use of the frequencies over an area specified by the frequency coordinator.

However, in addition, E.F. Johnson urges the Commission to permit band licensed trunking as well. In these instances, there would be no requirement to obtain the concurrence of co-channel users. Band licensed trunking will enhance the user's ability to locate a channel not in operation. Accordingly, the result would be increased spectrum efficiency, as well as improved communications capabilities for the user.

## **21. Wide Band Paging**

The Commission proposes to continue the authorization of paging systems on wide band (25 kHz) channels. However, the Commission asks whether it should designate specific narrowband paging channels. There are sufficient channels in other portions of the spectrum for paging. In particular, there are 900 MHz channels which can be used for private carrier paging purposes. The bands for private land mobile services should be employed primarily for two-way operations. Accordingly, the Commission should create no additional channels for paging operations.

### III. CONCLUSIONS

This proceeding represents a unique opportunity to increase the usefulness of the spectrum allocated to the Private Land Mobile Radio Services. Accordingly, E.F. Johnson strongly supports the Commission's goals. Nevertheless, the Commission must guard against action which would prematurely require the retirement of existing facilities. It must also resist the temptation to mandate the use of spectrum efficient technology, when that technology is not yet fully tested and may not serve the users' needs. Proven technologies, such as trunking, can be implemented today, with valuable results.

WHEREFORE, THE PREMISES CONSIDERED, E.F. Johnson submits the foregoing Comments and asks that the Commission adopt regulations consistent with the views expressed herein.

Respectfully submitted,

E.F. Johnson Company

By:



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